

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant : Cary Lee Bates et al. Art Unit: 2641  
Serial No. : 09/491,902 Examiner: Daniel Demelash Abebe  
Filed : January 27, 2000  
For : AUTOMATED DETECTION OF SPOKEN NUMBERS IN VOICE  
MESSAGES

Cincinnati, Ohio 45202

April 8, 2003

Assistant Commissioner for Patents  
**ATTENTION: Board of Patent Appeals and Interferences**  
Washington, D.C. 20231

**TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION-37CFR 191)**

1. Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal received by the Office on February 10, 2003.
2. **STATUS OF APPLICANT**

This application is on behalf of

XX other than a small entity

\_\_\_\_\_ small entity

Verified Statement:

\_\_\_\_\_ attached

\_\_\_\_\_ already filed

3. **FEE FOR FILING APPEAL BRIEF**

Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:

\_\_\_\_\_ Small entity \$160.00

XX Other than a small entity \$320.00

4. **EXTENSION OF TIME**

Applicant petitions for an extension of time under 37 C.F.R. 1.136(a) for the total number of months checked below:

| <u>Months</u>      | <u>Fee for other than<br/>small entity</u> | <u>Fee for<br/>small entity</u> |
|--------------------|--|---------------------------------|
| _____ one month    | \$ ..... 110.00                            | \$ ..... 55.00                  |
| _____ two months   | ..... 400.00                               | ..... 200.00                    |
| _____ three months | ..... 920.00                               | ..... 460.00                    |
| _____ four months  | ..... 1,440.00                             | ..... 720.00                    |
| _____ five months  | ..... 1,960.00                             | ..... 980.00                    |

Fee: \$ \_\_\_\_\_

If an additional extension of time is required, please consider this a petition therefor.

5. **TOTAL FEE DUE**

The total fee due is:

Appeal Brief Fee \$320.00

Extension Fee \_\_\_\_\_

6. **FEE PAYMENT**

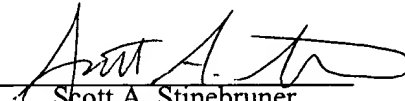
XX Attached is a check in the sums of \$320.00.

\_\_\_\_\_ Charge fee to Deposit Account No. 23-3000.

7. **FEE DEFICIENCY**

XX Charge any additional extension fee required or credit any overpayment to Deposit Account No. 23-3000.


WOOD, HERRON & EVANS, L.L.P.

By   
Scott A. Stinebruner  
Reg. No. 38,323

2700 Carew Tower  
Cincinnati, Ohio 45202  
(513) 241-2324

**CERTIFICATE OF MAILING 37 CFR 1.8**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Assistant Commissioner for Patents, Attention: Board of Patent Appeals and Interferences, Washington, D.C. 20231 on April 8, 2003.

  
Scott A. Stinebruner Reg. No. 38,323

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* Cary Lee Bates, Paul Reuben Day, John Matthew Santosuosso

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Appeal No. \_\_\_\_\_  
Application No. 09/491,902

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APPEAL BRIEF

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Cary Lee Bates et al.                      Art Unit: 2641  
Serial No.: 09/491,902                                      Examiner: Daniel Demelash Abebe  
Filed: January 27, 2000                                      Atty. Docket No.: IBM/116  
For: AUTOMATED DETECTION OF SPOKEN NUMBERS IN VOICE MESSAGES

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**APPEAL BRIEF**

Assistant Commissioner for Patents  
**ATTENTION: Board of Patent Appeals and Interferences**  
Washington, D.C. 20231

**I. REAL PARTY IN INTEREST**

This application is assigned to International Business Machines Corporation, of Armonk, New York.

**II. RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences.

**III. STATUS OF CLAIMS**

Claims 1-6, 8-11, 13-16, 18-23, and 25-27 are pending in the Application, with claims 1, 8, 10, 13, 22, 25, and 27 being once amended, and claims 7, 12, 17, and 24 being canceled. All pending claims currently stand rejected, and are now on appeal.

**IV. STATUS OF AMENDMENTS**

There have been no amendments filed subsequent to final rejection (Paper No. 6).

**V. SUMMARY OF INVENTION**

The invention is generally related to improvements in voice messaging and voice recognition technology. In particular, an apparatus, program product and method consistent with the invention utilize voice recognition to process voice messages in an automated manner to

detect spoken numbers contained therein, and then perform one of several actions in response thereto, e.g., to control a start position at which to begin playback of a voice message, or to automatically dial a telephone number mentioned in a voice message.

The invention, in particular, is directed to addressing the difficulties that can arise whenever a person mentions a telephone number when leaving a voice message for someone, e.g., where a sender of a message provides a telephone number that he or she would like the recipient to call when the message is received (Application, page 1, line 26 to page 2, line 2).

In particular, rarely is a recipient ready to write down a telephone number in a voice message the first time the recipient listens to the message. Many voice messages do not mention any telephone number, so a recipient often does not know beforehand whether a particular message will mention a telephone number. Furthermore, in some instances, the recipient may be listening on a mobile phone in an automobile or in a public place, and may not even have a writing utensil ready to transcribe a spoken telephone number in a message.

As a result, many users often listen to a message a first time, and once the message is complete, replay the message in its entirety so that the user can transcribe the number spoken in the message. In many instances, however, a voice message may be fairly long, and it can take a significant amount of time to replay the portion of the message containing the desired number. In addition, if the message is garbled or otherwise difficult to hear, a recipient may be required to replay a message several times to make sure that the correct number was transcribed. (Application, page 2, lines 3-11).

Some voice messaging systems attempt to address this problem by supporting fast forward and rewind functions that permit a recipient to skip forward or back by fixed time intervals. Typically, the fast forward and rewind functions are initiated in response to depression of a key on a telephone keypad, and as a result, skipping forward or backward in fixed time increments may require several depressions of the keypad to locate the desired location in the voice message. If the keypad is disposed on a telephone headset, a recipient is inconvenienced due to the fact that the user has to alternately depress a key and listen to the handset to locate the appropriate location in the voice message. (Application, page 2, lines 12-20).

Some voice messaging systems rely on Caller ID technology to report the telephone number of the originator of a voice message, and may permit a recipient of a voice message to dial the telephone number after listening to the voice message. (Application, page 2, line 24 to

page 3, line 2). However, in some instances, the telephone number of the originator of the voice message may be blocked from detection. Moreover, in other instances, the telephone number left by the originator of the message may be different from that used to leave the message. In such instances, Caller ID technology would not adequately address the problem.

Applicants' claims are directed to two principal concepts. The first concept is that of, in connection with processing a voice message, determining a playback start position for a voice message based upon the position of a spoken number in the voice message, coupled with playing the voice message starting at the playback start position. The position of the spoken number is determined by performing voice recognition on at least a portion of a voice message to generate a textual representation of the voice message, and detecting the position of the spoken number in the textual representation. (Application, page 4, lines 6-14)

In addition, in concert with this first concept, the capability for automatically dialing the detected spoken number is also supported. (Application, page 4, lines 15-21). Moreover, additional support is provided for skipping to previous and subsequent numbers in a voice message in response to user input. (Application, page 16, line 7 to page 17, line 24).

As a practical example of these concepts, consider a voice message that incorporates the following text:

"Hi, Steve. This is John. Sorry I missed you. Yes, Susan and I would like to meet you and your wife for dinner tonight. Give me a call back at work, 555-2131. I should be around until about 5:30. After that, you can call me on my cell phone, 555-1234."

Consistent with the first disclosed concept, a user might listen to the message, and then wish to play back the message starting at the position of a spoken number. As such, rather than having to listen to the entire message again, the user may be permitted to start playback immediately prior to the first number, "555-2131". Also, a user may also be permitted to skip from the first number to the second number ("555-1234"), or back to the first number, e.g., by hitting assigned buttons on the keypad. Furthermore, a user may be permitted to hit a button to automatically dial either of the spoken numbers.

The second claimed concept is that of, in connection with processing a voice message, determining whether a spoken number, detected in a voice message via voice recognition, is a

telephone number, coupled with automatically dialing the detected spoken number. Applicants discuss a number of manners of determining whether a spoken number is a telephone number, e.g., determining the number of digits, determining whether a sequence of digits matches a number format recognized by a voice communications system, utilizing a telephone directory service to determine whether a valid number exists, etc. (Application, page 19, lines 1-7). Thus, continuing with the above example, detection of whether a spoken number is a telephone number may be used to determine that the spoken time in the above message ("5:30") is not a valid telephone number, whereby skipping from telephone number to telephone number may not result in the playback of the spoken time, and whereby attempts to automatically dial the digits of the spoken time may be blocked.

#### VI. ISSUES

- A. Whether claims 1-6, 8-9, 13-16, 18-21 and 25-26 were improperly rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,504,805 to Lee.
- B. Whether claims 10-11, 22-23 and 27 were improperly rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,651,056 to Eting et al.

#### VII. GROUPING OF CLAIMS

Claims 1-6, 8-11, 13-16, 18-23, and 25-27 do not stand or fall together.

#### VIII. ARGUMENT

Applicants respectfully submit that the Examiner's rejections of claims 1-6, 8-9, 13-16, 18-21 and 25-26 based upon U.S. Patent No. 5,504,805 to *Lee*, and the rejections of claims 10-11, 22-23 and 27 based upon U.S. Patent No. 5,651,056 to *Eting et al.* are not supported on the record, and that the rejections should be reversed.

- A. **Claims 1-6, 8-9, 13-16, 18-21, and 25-26 were improperly rejected under 35 U.S.C. § 102(b) as being anticipated by Lee.**

The Examiner argues that *Lee* anticipates all of claims 1-6, 8-9, 13-16, 18-21 and 25-26. Anticipation of a claim under 35 U.S.C. §102, however, requires that "each and every element as

set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros., Inc. v. Union Oil Co., 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), *quoted in In re Robertson*, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999). Absent express description, anticipation under inherency requires extrinsic evidence that makes it clear that “the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” Continental Can Co. v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed. Cir. 1991), *quoted in In re Robertson* at 1951. “Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” Continental Can at 1749, *quoted in In re Robertson* at 1951.

Applicants respectfully submit that *Lee* does not disclose the various features recited in claims 1-6, 8-9, 13-16, 18-21, and 25-26, and as such, the rejections thereof should be reversed. Applicants will hereinafter address the various claims that are the subject of the Examiner's rejection in order.

### **Claim 1**

Turning first to independent claim 1, this claim recites a method of processing a voice message which includes, *inter alia*, “determining a playback start position based upon the position of [a detected] spoken number” and “playing the voice message starting at the playback start position.” Applicants respectfully submit that *Lee* does not disclose this combination of features, and as such, the Examiner has failed to meet the burden required to sustain a rejection under 35 U.S.C. §102(b).

In particular, Fig. 6 of *Lee*, the only portion thereof that discloses a routine for playing back a message, does not disclose any mechanism for controlling the playback start position of a message, much less basing such a position upon the detected position of a spoken number in the voice message. Instead, Fig. 6, and the accompanying description thereof at col. 4, lines 51 to col. 5, line 20, discloses that, in response to a “play message” command, a detected telephone number may be displayed on a display and/or recited by a voice synthesizer (block 144). Thereafter, however, the entire message is played back (block 146) from the start of the recording. Of note, while the number may be recited by a voice synthesizer at the start of the message, this recital is not analogous to controlling the playback start position for the message.



Indeed, the fact that a voice synthesizer is required to recite the number makes it clear that playback of the audio recording of the number is not contemplated by *Lee*.

In rejecting claim 1, the Examiner relies principally upon column 2, lines 12-52 of *Lee*, the relevant portions of which are reproduced below for the Board's convenience:

Analog to digital (A/D) converter 14, word recognizer 16 and memory 18 are used to extract or obtain a phone number from a verbal message left by the calling party. . . . Memory 18 receives the recognized phone number from recognizer 16. The phone number is stored in memory 18 until it is needed by the called party. When the called party replays the recorded message, the phone number stored in memory 18 is displayed on display 20, and may be recited in an audio message using speech synthesizer 22. Speech synthesizer 22 may also recite greetings and/or prompts to the calling party. . . . It is preferable to display or otherwise convey the phone number from memory 18 to the called party before replaying the message to the called party. This offers the advantage of allowing the called party to see and/or hear the phone number before listening to the recorded message. After listening to the recorded message and verifying that the phone number from memory 18 is correct, the called party can automatically dial the phone number from memory 18 by enabling dialer 24.

Of note, however, the Examiner does not even assert in the rejection that *Lee* discloses controlling a playback position for a voice message based upon the position of a spoken number. Instead, the Examiner relies on column 2, lines 35-38 for supposedly disclosing "playing the extracted telephone number." (11/5/02 Office Action, page 3). Disclosure of playing an extracted number, however, falls short of anticipating claim 1, as "playing the extracted number" is not what is specifically recited in the claim. Instead, what is recited is "playing the voice message starting at the playback start position," a feature that is not disclosed in *Lee*.

The Examiner does not assert, nor could the Examiner assert, that *Lee* discloses controlling a playback start position for a voice message for any reason, much less based upon the detected position of a spoken number. Therefore, the Examiner's rejection is deficient, and should be reversed.

As noted above, using a voice synthesizer to audibly recite a spoken number is a different function from controlling the playback start position of a voice message. Most notably, the recitation of the spoken number with a voice synthesizer is out of context from the rest of the

message, as would occur if a playback start position for a voice message is controlled in the manner recited in claim 1.

It is also important to note that, in the Examiner's response to Applicants' arguments, found at paragraph 6 of the 11/5/02 Office Action, the Examiner misquotes a passage from *Lee* in a subtle, yet important manner. The Examiner quotes *Lee* as disclosing at col. 2, lines 42-47 that a number is conveyed to a called party "prior/before to replaying the (rest) of the messages to the called party." However, what is actually recited in this passage is "[i]t is preferable to display or otherwise convey the phone number from memory 18 to the called party before replaying the message to the called party." The addition of the term "rest of" to the Examiner's quote completely alters the overall impression of the passage, as the Examiner's version of the passage would appear to suggest that the number is somehow played in context with the rest of the voice message. However, the clear disclosure of *Lee* does not support such a suggestion; rather, the most reasonable interpretation of this passage of *Lee*, when coupled with the additional disclosure in the reference relating to Fig. 6 (in particular, at col. 5, lines 1-5), is that the voice message is played from the beginning after the spoken number is either displayed on a visual display, or recited by a voice synthesizer. As such, *Lee* does not contemplate the control a playback start position of a message based upon the detected position of a spoken number.

Given that *Lee* does not disclose the control of a playback start position based upon the detected position of a spoken number, Applicants respectfully submit that claim 1 is novel over *Lee*, and as such, the Examiner's rejection should be reversed.

Moreover, Applicants respectfully submit that claim 1 is non-obvious over *Lee*, as there is no suggestion in the reference of the desirability of starting the playback of a voice message at a particular point in a message, much less at a position that is tied to the detected position of a spoken number. As is discussed at length in Applicants' Specification, one advantage of Applicants' claimed invention is that a user listening to a replayed voice message may be able to start the playback of a voice message at a position that is based upon the position of a spoken number, e.g., a few seconds prior to the beginning of the spoken number. By doing so, a user may quickly ascertain the spoken number in context without having to listen to an entire message. This claimed feature therefore provides a unique and unexpected advantage over prior art voice message playback systems where a user may be required to listen to a significant portion of a voice message to hear a spoken number incorporated into that message.

This feature is not suggested by *Lee* or any of the other prior art of record. Accordingly, Applicants respectfully submit that claim 1 is also non-obvious over *Lee* and the other references cited by the Examiner. Reversal of the Examiner's rejection of claim 1, and a determination of the patentability of the claim over the prior art of record, are therefore respectfully requested.

### Claims 2-3

Claims 2-3 are not separately argued.

### Claims 4-5

Claims 4 and 5 each add to claim 1, the concept of receiving user input to find a previous or next number from a current playback position, and detecting a preceding or succeeding spoken number from a current playback position. As such, the features recited in these claims permit a user to skip forward or backward to a next or previous spoken number without having to listen to intermediate portions of a message between the current playback position and the start of the succeeding or preceding spoken number.

In rejecting these claims, the Examiner asserts that "Lee teaches enabling the user to control the message playback by receiving user's input during play back", citing Figs. 3-6. (11/05/02 Office Action, page 3). A closer inspection of *Lee*, however, reveals no disclosure in the reference that is even arguably relevant to the features recited in claims 4 and 5. In fact, Fig. 6 and its accompanying disclosure, which are directed to playback of a voice message (the only operation disclosed in *Lee* that would even have a need for skipping between spoken numbers as recited in claims 4 and 5), do not even discuss the process of any commands during playback other than a command to dial a number.

Furthermore, Figs. 2 and 5 of *Lee*, and the accompanying disclosure, disclose only the storage of a single number for each message. The reference therefore does not even contemplate the possibility that multiple spoken numbers may exist in the same voice message.

As such, Applicants respectfully submit that *Lee* fails to disclose the features recited in either of claims 4 and 5. The rejections of these claims should therefore be reversed.

Moreover, Applicants respectfully submit that *Lee* also does not suggest the features recited in either of these claims. At most, an argument could be made that *Lee* suggests accepting commands during playback. One admittedly conventional command that might be

incorporated into *Lee* would be a skip command to skip forward or backward in a voice message by a fixed time increment, e.g., a few seconds. Even assuming *arguendo* that *Lee* did suggest the incorporation of skip commands into *Lee*'s playback mechanism, however, there would still be no suggestion in the reference, or elsewhere in the prior art, to skip forward or back to a particular position in a voice message based upon the location of a previous or next spoken number in the message. Given also that *Lee* does not even contemplate that multiple spoken numbers might be present in a given voice message, Applicants submit that *Lee* cannot be interpreted to supply the necessary motivation to incorporate this feature into the *Lee* system. As such, Applicants respectfully submit that claims 4 and 5 are also non-obvious over *Lee* and the other references cited by the Examiner. Reversal of the Examiner's rejections of claims 4 and 5, and a determination of the patentability of the claims over the prior art of record, are therefore respectfully requested.

#### Claims 6 and 8

Claims 6 and 8 are not separately argued.

#### Claim 9

Claim 9 adds to claim 1, the concept of detecting that a spoken number is a telephone number. By utilizing this feature, a voice messaging processing system may avoid presenting invalid numbers to a message recipient. For example, if a message recited a phrase such as "my address is 349 Main Street," the detection of whether a spoken number is a telephone number may determine that the number "349" is not a telephone number, thus enabling storage of the number as a telephone number (and subsequent operations such as determining a playback start position, automatically dialing, skipping to previous/next numbers), to be suppressed.

In rejecting claim 9, the Examiner argues that *Lee* teaches "where the telephone numbers extracted are spoken telephone number [sic]", citing col. 1, lines 35-44 and col. 2, lines 45-52 of the reference. (11/05/02 Office Action, page 3). However, the fact that *Lee* discloses that certain numbers are telephone numbers is irrelevant, as the specific language of claim 9 focuses on "detecting that [a] spoken number is a telephone number," a feature that is not disclosed or suggested by the reference.

The Examiner can cite no other passage in *Lee* that purports to disclose any functionality to attempts to determine whether a recognized number is or is not a telephone number. Absent any such disclosure, the rejection cannot be sustained. Reversal of the Examiner's rejection of claim 9 is therefore respectfully requested.

Moreover, Applicants respectfully submit that neither *Lee*, nor any other prior art of record, suggests the detection that a spoken number is a telephone number, as recited in claim 9. *Lee*, in particular, is utterly silent as to any analogous functionality, so the reference certainly cannot be read to suggest any such functionality. In addition, *Eting et al.*, which is relied upon to allegedly disclose detection of whether a spoken number is a telephone number in the rejections of claims 10-11, 22-23 and 27, similarly does not disclose or suggest this feature, as set forth in more detail below in Applicants' arguments directed to claim 10. Applicants therefore respectfully submit that claim 9 is non-obvious over the prior art of record. Reversal of the Examiner's rejection of claim 9, and a determination of the patentability of the claim over the prior art of record, are therefore respectfully requested.

### **Claim 13**

Next, with respect to independent claim 13, this claim recites similarly to claim 1, the detection of a position of a spoken number in a textual representation of a voice message, coupled with the determination of a playback start position based upon the position of a spoken number, and the playback of a voice message starting at the playback start position. As discussed above in connection with claim 1, this combination of features is not disclosed or suggested by *Lee* or any of the other prior art of record. The rejection of claim 13 should therefore be reversed for the same reasons presented above for claim 1.

Moreover, claim 13 additionally recites the concept of receiving user input to find a next number from a current playback position in the voice message, and detecting the position of a spoken number by detecting an immediately succeeding spoken number from the current playback position. As discussed above in connection with claims 4 and 5, this additional feature is not disclosed or suggested by *Lee* or the other prior art of record. As an additional matter, it should be noted that in rejecting claim 13, the Examiner relies generally on Figs. 1, 2 and 6 of *Lee*. However, the Examiner points to no specific disclosure in the reference regarding this particular feature. The Examiner's rejection is conclusory in nature and insufficient to sustain a

rejection based upon anticipation. Accordingly, the rejection of claim 13 should also be reversed for the same reasons presented above for claims 4 and 5.

Given also that the Examiner has failed to establish any motivation in the art for modifying *Lee* to support either the determination of a playback start position for a voice message based upon the position of a spoken number in the message, or the detection of the position of a spoken number by detecting an immediately succeeding spoken number from a current playback position, Applicants respectfully submit that claim 13 is also non-obvious over the prior art of record. Reversal of the Examiner's rejection of claim 13, and a determination of the patentability of the claim over the prior art of record, are therefore respectfully requested.

#### Claims 14-16 and 18-20

Claims 14-16 and 18-20 are not separately argued.

#### Claim 21

Claim 21 adds to claim 13, the concept of detecting that a spoken number is a telephone number. As discussed above in connection with claim 9, this additional concept is also not disclosed or suggested in *Lee* or any other reference cited by the Examiner. The rejection of claim 21 should therefore be reversed for the reasons presented above for claim 9. Reversal of the Examiner's rejection of claim 21, and a determination of the patentability of the claim over the prior art of record, are therefore respectfully requested.

#### Claim 25

Next, with respect to independent claim 25, this claim recites *inter alia*, a program configured to detect a position of a spoken number in a textual representation of a voice message, to determine a playback start position based upon the position of a spoken number, and to play the voice message starting at the playback start position. As discussed above in connection with independent claim 1, this combination of features is not disclosed by *Lee*. The rejection of claim 25 should therefore be reversed for the same reasons presented above for claim 1.

Moreover, claim 25 also recites the concept of detecting whether a spoken number is a telephone number. As discussed above in connection with claim 9, this additional concept is also

not disclosed in *Lee* or any other reference cited by the Examiner. The rejection of claim 25 should therefore be reversed also for the reasons presented above for claim 9.

Given also that the Examiner has failed to establish any motivation in the art for modifying *Lee* to support either the determination of a playback start position for a voice message based upon the position of a spoken number in the message, or the detection of whether a spoken number is a telephone number, Applicants respectfully submit that claim 25 is also non-obvious over the prior art of record. Reversal of the Examiner's rejection of claim 25, and a determination of the patentability of the claim over the prior art of record, are therefore respectfully requested.

#### **Claim 26**

Claim 26 is not separately argued.

#### **B. Claims 10-11, 22-23 and 27 were improperly rejected under 35 U.S.C. § 102(b) as being anticipated by Eting et al.**

The Examiner next argues that *Eting et al.* anticipates all of claims 10-11, 22-23 and 27. Applicants respectfully submit, however, that *Eting et al.* does not disclose the various features recited in claims 10-11, 22-23 and 27, and as such, the rejections thereof should be reversed. Applicants will hereinafter address the various claims that are the subject of the Examiner's rejection in order.

#### **Claim 10**

Turning first to independent claim 10, this claim recites a method of processing a voice message which includes *inter alia* determining that a spoken number is a telephone number. Applicants respectfully submit that *Eting et al.* does not disclose the automated determination or detection of whether a spoken number is or is not a telephone number. Claim 10 is therefore novel over *Eting et al.*, and the rejection thereof should be reversed.

What *Eting et al.* does disclose, e.g., in Figs. 5 and 7, and the text accompanying the same, is the detection of individual digits, which are then combined to form a recognized number. However, while *Eting et al.* discloses the detection of numbers formed by strings of digits in a voice message, it is important to note that this detection does not verify whether any

particular string of digits forming a number is or is not a valid telephone number. It should be evident, for example, that were the *Eting et al.* system used to process a voice message that included a spoken number that was not a telephone number, that number would still be stored as a recognized number, irrespective of the fact that the spoken number was not a telephone number. For example, if a voice message included the spoken phrase "my address is 349 Main Street," the *Eting et al.* system would store the digits "349" as a recognized number. Moreover, a user would be able to automatically dial that number, resulting in the automated dialing of an invalid number.

The invention set forth in claim 10, on the other hand, permits detected numbers to be verified as telephone numbers, and thus potentially avoids the storage and/or automated dialing of numbers that are not valid telephone numbers. As discussed at page 19, lines 1-7 of the Application, for example, such a determination may be made based upon a number of different factors, e.g., the number of digits, the number format, the presence in a telephone directory service, etc. No analogous functionality is disclosed in *Eting et al.*

In rejecting claim 10, the Examiner relies on column 14, lines 18-35 of *Eting et al.* for allegedly disclosing confirming a detected telephone number. The cited passage, however, merely discloses the detection of individual digits and storing of those digits as a recognized number. The "confirmation" disclosed in connection with step 850 appears to be nothing more than a confirmation that a digit was received and processed, presumably either by reciting back the digit or beeping. This confirmation, however, only confirms individual digits, and does not confirm whether a string of digits constitutes a telephone number. The passage is therefore silent as to any determination of whether any string of spoken digits conforms to a telephone number, as would be required to anticipate claim 10.

Moreover, the Examiner's response to Applicants' arguments relies on passages in the abstract and at col. 3, lines 64-68, which disclose recognizing and confirming recognized telephone numbers. The passage in the abstract, however, presumes that a number being recognized is a telephone number. There is no functionality disclosed in this passage that actively attempts to determine whether a recognized number is or is not a telephone number.

The recitation of a device "operative to confirm the spoken telephone number," found in the passage at col. 3, lines 64-68, also does not disclose the determination of whether a spoken number is or is not a telephone number. As noted above, this "confirmation" functionality is



directed to confirming that individual digits are numbers, and that the digits have been received, rather than determining whether a string of digits corresponds to a telephone number.

Put another way, Applicants are quite confident that, were a message that incorporated a non-telephone number (e.g., the digits "349" in the aforementioned example) processed by the *Eting et al.* system, that non-telephone number would be stored in the *Eting et al.* system as a recognized telephone number. There is simply no disclosed functionality in the reference that would ever disregard a string of digits based upon those digits not forming a telephone number. As such, *Eting et al.* does not disclose "determining that [a] spoken number is a telephone number", as recited in claim 10. Applicants therefore respectfully submit that *Eting et al.* falls far short of anticipating claim 10, and that the rejection of claim 10 should be reversed.

Moreover, as there is no suggestion of the desirability of confirming whether a string of digits is or is not a telephone number, Applicants also respectfully submit that claim 10 is also non-obvious over *Eting et al.* Reversal of the Examiner's rejection of claim 10, and a determination of the patentability of the claim over the prior art of record, are therefore respectfully requested.

#### Claim 11

Claim 11 is not separately argued.

#### Claim 22

Next, with regard to independent claim 22, this claim likewise recites the detection of whether a spoken number is a telephone number. As discussed above in connection with claim 10, this feature is not disclosed or suggested by *Eting et al.* or any of the other prior art of record. Reversal of the Examiner's rejection, and a determination of the allowability of claim 22, are therefore respectfully requested.

#### Claim 23

Claim 23 is not separately argued.

Claim 27

Finally, with regard to independent claim 27, this claim likewise recites the detection of whether a spoken number is a telephone number. As discussed above in connection with claim 10, this feature is not disclosed or suggested by *Eting et al.* or any of the other prior art of record. Reversal of the Examiner's rejection, and a determination of the allowability of claim 27, are therefore respectfully requested.

IX. CONCLUSION

In conclusion, Applicants respectfully request that the Board reverse the Examiner's rejections of claims 1-6, 8-11, 13-16, 18-23, and 25-27, and that the Application be passed to issue. If there are any questions regarding the foregoing, please contact the undersigned at 513/241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P.

Date: 8 APRIL 2003

2700 Carew Tower  
441 Vine Street  
Cincinnati, Ohio 45202  
(513) 241-2324

By: 

Scott A. Stinebruner  
Reg. No. 38,323

**APPENDIX A: CLAIMS ON APPEAL (S/N 09/491,902)**

1. (Once Amended) A method of processing a voice message, the method comprising:
  - (a) performing voice recognition on at least a portion of the voice message to generate a textual representation of the voice message;
  - (b) detecting a position of a spoken number in the textual representation of the voice message;
  - (c) determining a playback start position based upon the position of the spoken number;
  - (d) playing the voice message starting at the playback start position; and
  - (e) automatically dialing the spoken number.
2. (Unchanged) The method of claim 1, wherein the spoken number includes a plurality of spoken digits, and wherein detecting the position of the spoken number includes detecting a start position of a leading digit in the plurality of spoken digits.
3. (Unchanged) The method of claim 1, wherein determining the playback start position includes setting the playback start position to a position earlier than the position of the spoken number.
4. (Unchanged) The method of claim 1, further comprising receiving user input to find a previous number from a current playback position in the voice message, wherein detecting the position of the spoken number includes detecting an immediately preceding spoken number from the current playback position.
5. (Unchanged) The method of claim 1, further comprising receiving user input to find a next number from a current playback position in the voice message, wherein detecting the position of the spoken number includes detecting an immediately succeeding spoken number from the current playback position.
6. (Unchanged) The method of claim 1, further comprising displaying at least a portion of the textual representation to a user.

7. (Canceled)

8. (Once Amended) The method of claim 1, wherein automatically dialing the spoken number is performed in response to user input.

9. (Unchanged) The method of claim 1, wherein detecting the spoken number includes detecting that the spoken number is a telephone number.

10. (Once Amended) A method of processing a voice message, the method comprising:

- (a) performing voice recognition on at least a portion of the voice message to detect a spoken number in the voice message;
- (b) determining that the spoken number is a telephone number; and
- (c) automatically dialing the detected spoken number.

11. (Unchanged) The method of claim 10, wherein automatically dialing the detected spoken number is performed in response to user input.

12. (Canceled).

13. (Once Amended) An apparatus, comprising:

- (a) a memory within which is resident a voice message; and
- (b) a program resident in the memory and configured to perform voice recognition on at least a portion of the voice message to generate a textual representation of the voice message, to detect a position of a spoken number in the textual representation of the voice message, to determine a playback start position based upon the position of the spoken number, and to play the voice message starting at the playback start position, wherein the program is further configured to receive user input to find a next number from a current playback position in the voice message, and wherein the program is configured to detect the position of the spoken number by detecting an immediately succeeding spoken number from the current playback position.

14. (Unchanged) The apparatus of claim 13, wherein the spoken number includes a plurality of spoken digits, and wherein the program is configured to detect the position of the spoken number by detecting a start position of a leading digit in the plurality of spoken digits.

15. (Unchanged) The apparatus of claim 13, wherein the program is configured to determine the playback start position by setting the playback start position to a position earlier than the position of the spoken number.

16. (Unchanged) The apparatus of claim 13, wherein the program is further configured to receive user input to find a previous number from a current playback position in the voice message, and wherein the program is configured to detect the position of the spoken number by detecting an immediately preceding spoken number from the current playback position.

17. (Canceled).

18. (Unchanged) The apparatus of claim 13, wherein the program is further configured to display at least a portion of the textual representation to a user.

19. (Unchanged) The apparatus of claim 13, wherein the program is further configured to automatically dial the spoken number.

20. (Unchanged) The apparatus of claim 19, wherein the program is configured to automatically dial the spoken number in response to user input.

21. (Unchanged) The apparatus of claim 13, wherein the program is configured to detect whether the spoken number is a telephone number.

22. (Once Amended) An apparatus, comprising:

- (a) a memory within which is resident a voice message; and
- (b) a program resident in the memory and configured to perform voice recognition on at least a portion of the voice message to detect a spoken number in the

voice message, to detect whether the spoken number is a telephone number, and to automatically dial the detected spoken number.

23. (Unchanged) The apparatus of claim 22, wherein the program is configured to automatically dial the spoken number in response to user input.

24. (Canceled).

25. (Once Amended) A program product, comprising:

(a) a program configured to perform voice recognition on at least a portion of a voice message to generate a textual representation of the voice message, the program further configured to detect a position of a spoken number in the textual representation of the voice message, to determine a playback start position based upon the position of the spoken number, to detect whether the spoken number is a telephone number, and to play the voice message starting at the playback start position; and

(b) a signal bearing medium bearing the program.

26. (Unchanged) The program product of claim 25, wherein the signal bearing medium includes at least one of a transmission medium and a recordable medium.

27. (Once Amended) A program product, comprising:

(a) a program configured to perform voice recognition on at least a portion of a voice message to detect a spoken number in the voice message, to detect whether the spoken number is a telephone number, and to automatically dial the detected spoken number; and

(b) a signal bearing medium bearing the program.